

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P307952

Luminaire Tested: **14FCZ2-35-UNV-L82765-S-CP187-W2A-U-2700K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P307952
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-35-UNV-L82765-S-CP187-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 2700K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2923.0 lumens
Efficiency: N/A
Efficacy: 99.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

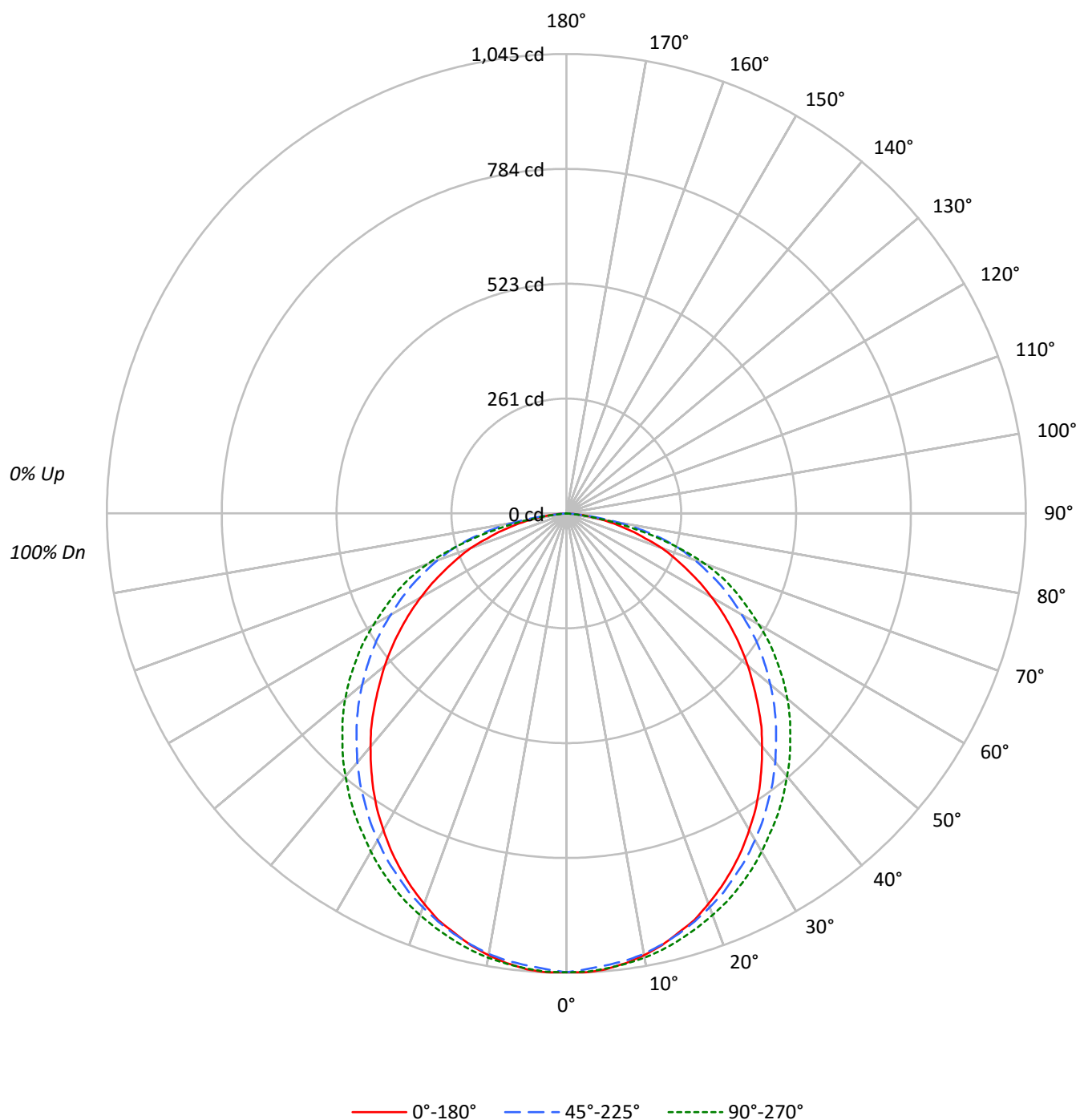
Input Watts (W): 29.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	109	104	100	96	106	102	98	94	97	94	91		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2808	2808	2808
5°	2811	2787	2807
10°	2788	2780	2804
15°	2749	2757	2794
20°	2706	2731	2785
25°	2651	2698	2776
30°	2585	2666	2761
35°	2514	2628	2752
40°	2433	2596	2744
45°	2344	2565	2741
50°	2257	2536	2748
55°	2162	2516	2740
60°	2059	2481	2722
65°	1938	2473	2722
70°	1825	2452	2645
75°	1582	2396	2260
80°	1280	1931	1505
85°	849	670	448



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.5	3.4
10°-20°	280.4	9.6
20°-30°	420.6	14.4
30°-40°	501.7	17.2
40°-50°	518.7	17.7
50°-60°	473.5	16.2
60°-70°	372.7	12.7
70°-80°	216.9	7.4
80°-90°	40.0	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	799.5	27.4
0°-40°	1301.2	44.5
0°-60°	2293.4	78.5
0°-90°	2923.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2923.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1044	1044	1044	1044	1044	
5°	1041	1038	1032	1041	1039	99
15°	987	988	990	1003	1003	278
25°	893	897	909	930	935	411
35°	765	775	800	830	838	478
45°	616	636	674	712	720	476
55°	461	486	536	575	584	412
65°	304	336	388	419	428	302
75°	152	188	230	226	217	162
85°	28	39	22	17	14	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1043.5	1043.5	1043.5	1043.5	1043.5
2.5°	1044.9	1042.0	1037.7	1044.9	1043.5
5°	1040.6	1037.7	1031.9	1040.6	1039.1
7.5°	1031.9	1029.0	1026.1	1034.8	1033.3
10°	1020.3	1018.8	1017.4	1027.5	1026.1
12.5°	1005.8	1005.8	1004.3	1015.9	1015.9
15°	986.9	988.4	989.8	1002.9	1002.9
17.5°	969.6	968.1	972.4	986.9	988.4
20°	944.9	947.8	953.6	971.0	972.4
22.5°	920.3	923.2	933.3	950.7	955.1
25°	892.7	897.1	908.7	930.4	934.8
27.5°	863.8	869.6	885.5	908.7	913.0
30°	831.9	840.6	858.0	884.0	888.4
32.5°	800.0	808.7	830.4	856.5	862.3
35°	765.2	775.4	800.0	830.4	837.7
37.5°	729.0	742.0	771.0	801.4	810.1
40°	692.7	707.2	739.1	771.0	781.1
42.5°	656.5	671.0	705.8	742.0	752.2
45°	615.9	636.2	673.9	711.6	720.3
47.5°	576.8	598.5	640.6	678.3	689.8
50°	539.1	560.9	605.8	644.9	656.5
52.5°	500.0	523.2	571.0	611.6	621.7
55°	460.9	485.5	536.2	575.4	584.0
57.5°	421.7	447.8	500.0	537.7	547.8
60°	382.6	410.1	460.9	498.5	505.8
62.5°	343.5	372.5	424.6	458.0	465.2
65°	304.3	336.2	388.4	418.8	427.5
67.5°	266.7	298.5	349.3	378.3	385.5
70°	231.9	260.9	311.6	333.3	336.2
72.5°	188.4	224.6	273.9	285.5	278.3
75°	152.2	188.4	230.4	226.1	217.4
77.5°	115.9	152.2	179.7	165.2	153.6
80°	82.6	118.8	124.6	102.9	97.1
82.5°	53.6	82.6	69.6	53.6	43.5
85°	27.5	39.1	21.7	17.4	14.5
87.5°	8.7	5.8	2.9	2.9	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)